

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF NEW JERSEY**

SECURITIES AND EXCHANGE
COMMISSION,

Plaintiff,

v.

ARKADIY DUBOVOY, et al.

Defendants.

Civil Action No.: 15-cv-06076
(MCA-MAH)

DECLARATION OF DANIEL R. FISCHER

I. QUALIFICATIONS

1. I am President of Compass Lexecon, a consulting firm that specializes in the application of economics to a variety of legal and regulatory issues. I am also the Lee and Brena Freeman Professor of Law and Business Emeritus at The University of Chicago Law School. I served previously as Dean of The University of Chicago Law School, Director of the Law and Economics Program at The University of Chicago, and as Professor of Law and Business at The University of Chicago Graduate School of Business, the Kellogg School of Management at Northwestern University, and at the Northwestern University Law School.

2. Both my research and my teaching have concerned the economics of corporate law and financial markets. I have published approximately fifty articles in leading legal and economics journals and am coauthor, with Judge Frank Easterbrook of the Seventh Circuit Court of Appeals, of the book *The Economic Structure of Corporate Law* (Harvard University Press). Courts of all levels, including the Supreme Court of the United States, have

cited my articles as authoritative. My curriculum vitae, which contains a list of my publications, is attached hereto as Exhibit A.

3. I have served as a consultant or advisor on economic issues to, among others, the United States Department of Justice, the United States Securities and Exchange Commission, the National Association of Securities Dealers, the New York Stock Exchange, the Chicago Board of Trade, the Chicago Board Options Exchange, the Chicago Mercantile Exchange, the New York Mercantile Exchange, the United States Department of Labor, the Federal Deposit Insurance Corporation, the Resolution Trust Corporation, the Federal Housing Finance Agency, and the Federal Trade Commission.

4. I am a member of the American Economic Association and the American Finance Association. I am also a member of the Board of Governors of the Becker Friedman Institute at the University of Chicago. I am a former Advisor to the Corporate Governance Project at Harvard University, a former member of the Board of Directors of the Center for the Study of the Economy and the State at The University of Chicago, and former Chairman of the American Association of Law Schools' Section on Law and Economics. I have testified as an expert witness in multiple proceedings in federal and state courts across the country, as detailed in Exhibit A.

II. ASSIGNMENT AND SUMMARY OF OPINIONS

5. I have been retained by counsel for David Amaryan and his related entities Copperstone Capital, Copperstone Alpha Fund, Intertrade Pacific and Ocean Prime in connection with their position as Defendants in a Securities and Exchange Commission action alleging a far-reaching insider trading scheme.

6. The United States Securities and Exchange Commission (the “SEC”) claims that 34 defendants perpetrated a scheme that involved hacking computer servers belonging to several news wires, stealing pre-release company press releases, providing certain traders access to the stolen releases, and trading on the basis of the material non-public information contained in the releases.¹ The defendants fall into three categories: the Hacker Defendants; the Dubovoy Group Defendants; and the Foreign Trader Defendants.² The Foreign Trader Defendants include David Amaryan and related entities Copperstone Alpha Fund, Copperstone Capital, Ocean Prime Inc., and Intertrade Pacific S.A.³ The SEC alleges that Mr. Amaryan’s related funds, Copperstone Alpha Fund, Ocean Prime and Intertrade Pacific (together, the “Related Funds”) improperly traded around a series of events on the basis of inside information provided by the Hacker Defendants, generating illicit profits of \$8.1 million.⁴

7. According to the SEC, Newswire Service 1 and Newswire Service 2 were accessible to the Hacker Defendants at various points from 2010 until 2014.⁵ During that period, they are alleged to have stolen more than 100,000 press releases prior to their public release.⁶ The SEC alleges that Mr. Amaryan and his related funds purportedly gained access to the stolen press releases and that their trading “illustrates their participation in the scheme.”⁷ The SEC’s Amended Complaint identifies 11 examples of alleged illegal insider trading including seven examples that include trading by Mr. Amaryan and his related funds.⁸ I understand the SEC has

1. Amended Complaint, SEC v. Arkadiy Dubovoy, et al., dated August 11, 2015 (“Amended Complaint”), ¶¶ 1-9.

2. Id. at 8-19.

3. Id. ¶¶ 33-37.

4. Id. ¶ 33.

5. Id. ¶74.

6. Id. ¶72.

7. Id. ¶ 120.

8. Id. ¶¶ 148-221. Examples 5 through 11 list trading by Copperstone Alpha, Ocean Prime or Intertrade. See ¶¶ 178, 185, 191, 198, 205, 212, and 218.

produced lists containing the events around which Mr. Amaryan and his related funds are alleged to have traded improperly.⁹

8. I have been asked by counsel for Mr. Amaryan to analyze the economic evidence pertaining to the SEC's allegations that Mr. Amaryan and his Related Funds traded on the basis of material non-public information obtained directly or indirectly from the Hackers in connection with the companies and events cited on the SEC's Event Listings for Copperstone Alpha Fund ("Copperstone"), Intertrade Pacific ("Intertrade") and Ocean Prime.^{10 11} In performing this task, I was assisted by members of Compass Lexecon's professional staff.¹² Based on our review of the economic evidence, I have reached the following principal conclusions:

- When viewed as a whole, an evaluation of key metrics demonstrates that there is no principled basis to distinguish the pattern and profitability of the questioned trades from the non-questioned trades. In particular:
 - The trading in the Related Funds was not concentrated around the questioned events;
 - It was common for the Related Funds to trade in a tight window around earnings announcements;
 - The size of the Related Funds' trades ahead of the questioned events was similar to or smaller than the trades ahead of other earnings announcements;
 - The Related Funds earned a majority of their overall profits from trades that were not questioned by the SEC; and
 - Many of the questioned trades resulted in losses, not profits.
- Trading in advance of earnings announcements is common.

9. SEC-DUB-L-0000001-11.

10. Id.

11. The SEC alleges a connection between Mr. Amaryan and his related funds on one hand and Nikolai Slepnev and Escada Logistics on the other hand. I have not been provided with nor have I analyzed any Slepnev/Escada trading data or account statements.

12. I am being compensated for my work on this assignment at my customary hourly rate, which is \$1,250 per hour. My compensation is not contingent on the outcome of this matter. Exhibit B lists the materials that I have considered in connection with my work on this matter.

In the remainder of this report I elaborate upon and provide the bases for my opinions.

III. BACKGROUND

9. The SEC alleges that from 2010 until 2014, the Hacker Defendants gained unauthorized access to the computer systems of two newswire services (Newswire 1 and Newswire 2, collectively the “Newswire Services”) and used that access to steal over 100,000 press releases before they were issued to the public.¹³ Newswire 1 is described as “a newswire service based in Toronto, Canada” that provides “end-to-end content, news production, and distribution services to its clients.”¹⁴ Newswire 2 is described as “a newswire service with headquarters in New York, New York” that provides “end-to-end content, news production, and distribution services to its clients.”¹⁵ I understand that Newswire 1 refers to Marketwired L.P., a newswire service headquartered in Toronto, Canada. The SEC further alleges that some of the defendants perpetrated the same scheme against a third newswire service (“Newswire Service 3”) during the period of December 2014 through May 2015.¹⁶

10. The SEC alleges that the Hacker Defendants’ access to the computer systems changed over time and oscillated between Newswire Service 1 and Newswire Service 2 over various periods from February 2010 through the present. The SEC claims that access to the draft press releases on the newswire services’ servers gave the Hacker Defendants, and through them the Trader Defendants, access to material non-public information that provided them a trading advantage.¹⁷

13. Amended Complaint ¶¶20 & 72.

14. Amended Complaint ¶53.

15. *Id.* ¶54.

16. *Id.* ¶10.

17. *Id.* ¶¶69 & 71.

11. Trader Defendants Copperstone Alpha Fund, Copperstone Capital, Intertrade Pacific and Ocean Prime are entities with connections to David Amarian, also a Trader Defendant.¹⁸ Intertrade and Ocean Prime are proprietary trading funds controlled by Mr. Amarian and Copperstone Alpha Fund is a Cayman Island hedge fund.¹⁹ The SEC alleges the illicit trading was done in these Related Funds earning profits of \$4.4 million in Copperstone and \$3.7 million in Intertrade and Ocean Prime, combined.²⁰

IV. WHEN VIEWED AS A WHOLE, AN EVALUATION OF KEY METRICS DEMONSTRATES THAT THERE IS NO PRINCIPLED BASIS TO DISTINGUISH THE PATTERN AND PROFITABILITY OF THE QUESTIONED TRADES FROM THE NON-QUESTIONED TRADES

12. Exhibits C, D and E are the SEC's Event Listings that list the events around which the SEC alleges Mr. Amarian and his related funds traded illicitly. The lists contain the ticker symbol of the security, the company name and the event date ahead of which the SEC alleges there was questioned trading. The lists identify 153 events for Copperstone, 126 events for Intertrade and 40 events for Ocean Prime, with 160 unique events overall.²¹

13. The trading data I analyzed for Copperstone Alpha Fund, Intertrade and Ocean Prime came from the Credit Suisse trade listing (Copperstone) or fund blotter (Intertrade and Ocean Prime) that I was provided by counsel. In particular, the data for Copperstone are contained in the CS Trading Activity files and cover the period January 2012 – August 2015.²² The data for Intertrade are contained in five blotter files that cover the period February 2012 –

18. *Id.* ¶33.

19. *Id.* ¶33-34. I understand that the Copperstone Alpha Fund was named the best Russian Fund (since inception) in the 2015 Acquisition International Hedge Fund Awards.

20. Amended Complaint ¶33.

21. The Event Listing for Copperstone, Intertrade and Ocean Prime contain some inconsistent event dates. For example, the Copperstone Event Listing identifies an event for HPQ as both 2/20/2013 and 2/21/2013, while the Intertrade Event Listing lists an event for HPQ on 2/20/2013. For purposes of this event count I treat each unique date as an event.

22. CS Trading Activity 1.xls and CS Trading Activity 2.xls.

March 2015.²³ The data for Ocean Prime are contained in three blotter files that cover the period April 2013 – March 2015.²⁴

A. The trading in the Related Funds was not concentrated around the questioned events

14. The SEC's allegations of a widespread scheme involving illicit trading around events such as earnings announcements for hundreds of companies over a more than five year period implies that one would expect to find the trading done by the Related Funds to have been concentrated around the questioned events. I find the pattern of trading inconsistent with this expectation. Exhibit F shows that the Related Funds traded almost 400 different securities during the period for which I have data.²⁵ Ninety-five of these securities had one or more questioned event. The Exhibit also shows that the Related Funds together traded \$1.68 billion of securities, including approximately \$550 million for securities of companies with at least one event the SEC has challenged and over \$1.1 billion for companies with no events challenged by the SEC. Based on these figures, approximately two-thirds of the trading I analyzed was unrelated to the SEC's alleged ongoing scheme.²⁶

15. Exhibit F further shows that the pattern of trading a significant value in securities with no questioned events is also observed when the Related Funds are analyzed individually. On a fund by fund basis, over 73 percent, 48 percent and 62 percent of the trading was in securities with no questioned events for Copperstone, Intertrade and Ocean Prime, respectively.

23. U658284.20120111.20130109.xls, U658284.20130110.20140109.xls, U658284.20140110.20140321, U658284.20140324.20141203 and U658284.20141001.20150311.xls.

24. U1179827.20130408.20140321.csv, U1179827.20130408.20140321.xls and U1179827.20141001.20150325.xls.

25. This figure does not include currency swaps or other derivatives or commodities transactions.

26. There was approximately \$30 million of trading in securities with at least one questioned event in time periods that were not questioned for the Related Funds.

B. It was common for the Related Funds to trade in a tight window around earnings announcements

16. The SEC alleges that the Related Funds traded ahead of the questioned events between the time the press releases were uploaded to the newswire server and the time the press releases became public. I compared the trading by the Related Funds around questioned and non-questioned earnings announcements to test whether the fact that Mr. Amaryan and his Related Funds traded shortly before the events the SEC challenged was unique to those events and therefore consistent with what one would expect if they had material non-public information relating to certain events. Rather than finding the timing of the Related Funds' trading around the challenged events unique, I found the Related Funds had a pattern of trading shortly before earnings announcements. Exhibit G shows that the Related Funds traded shortly before approximately 118 unique earnings announcements that were not challenged by the SEC and 139 unique earnings announcement that were challenged.

17. The value of securities the Related Funds traded before questioned and non-questioned earnings announcement is also shown on Exhibit G. I find that the Related Funds traded more than \$250 million of securities both before earnings announcements that were questioned and those that were not.²⁷

18. Rather than point to a distinct pattern different than his other trading, this evidence shows that the Related Funds had a pattern of trading around earnings announcements, a strategy frequently adopted by many mutual funds, institutional investors and individual investors.²⁸

27. I understand from counsel that there is contemporaneous evidence that Mr. Amaryan, his analysts and traders discussed many of the investments that the SEC has questioned even before the press release was uploaded to the newswire servers.

28. See, ¶¶23-27 supra.

C. The size of the Related Funds' trades ahead of the questioned events was similar to or smaller than the trades ahead of other earnings announcements

19. If a trader has material non-public information one would expect the magnitude of the trading based on that information to be larger than trading around a similar event with no material non-public information. Contrary to such a finding, when I compared the average magnitude of the Related Funds' trading ahead of the questioned earnings announcements with the average magnitude of the trading ahead of non-questioned earnings announcements, they were approximately the same or the size of the trading ahead of the non-questioned earnings announcements was larger. Exhibit G shows that in the period immediately before the 139 earnings announcements the SEC challenged, the Related Funds collectively traded an average \$1.9 million of securities. Over the same window for the earnings announcements the SEC did not challenge, the Related Funds traded approximately \$2.3 million of securities. This result is confirmed when the Related Funds are analyzed separately.²⁹ In a situation where the contents of an earnings announcement are known in advance, one would expect a trader to commit more capital to the investment. That was clearly not the case around the events I studied and therefore the Related Funds' trading pattern does not illustrate participation in an insider trading scheme as the SEC alleges.

D. The Related Funds earned a majority of their overall profits from trades that were not questioned by the SEC

20. If a certain portion of a trader's trading is alleged to have been made on the basis of material non-public information, one can analyze the profitability of that trading relative to the trader's other trading to determine whether the alleged insider trading is

29. See Exhibits H, I & J, showing that for Copperstone, Intertrade and Ocean Prime, the average value of trading ahead of the non-questioned earnings announcements was similar in size to the average amount of trading ahead of questioned earnings announcements.

distinguishable. One would expect that trading based on pre-release press releases covering events such as earnings announcements would be more profitable in the aggregate and on average than trading around earnings announcements and other events where no advance notice of the contents is available.

21. To test whether the profitability of the trading in the Related Funds that the SEC alleges was improper is consistent with what one would expect if the funds had material non-public information relating to certain events, I analyzed the profitability of the Related Funds' trading overall, and in each of their investments. I find that a majority of the profits earned by the Related Funds collectively were generated by trading in securities with no questioned events. Exhibit K shows the results of my analysis which reports the breakdown in profits for Copperstone, Intertrade and Ocean Prime around questioned events and for other trading. As this exhibit demonstrates, the challenged trading generated \$3.9 million in profits,³⁰ only 13.4 percent of the profits of the Related Funds, while the remainder of the trading generated \$25.4 million or 86.6 percent of the Related Funds' profits.

E. Many of the questioned trades resulted in losses to the Related Funds, not profits

22. I further analyzed the profitability of the Related Funds' trading around the questioned events themselves to determine whether the profitability of the challenged trading supports the view that Mr. Amaryan or the Related Funds had material non-public information

30. The SEC alleges that Copperstone earned illicit profits of \$4.4 million on its trading around the events listed on the Copperstone Event Listing. While the trades around questioned events that were profitable together earned approximately \$4.4 million, the SEC has ignored the losses Copperstone suffered on other trades they challenged. When both are included, Copperstone's net profit around the events the SEC has challenged is much lower – only about \$2 million. Similarly, if profits and losses are counted for Intertrade, the fund only earned profits of approximately \$1.0 million. For Ocean Prime, the results are also similar. If both profits and losses are considered, the fund earned profits of approximately \$1.1 million. Together, the SEC alleges Intertrade and Ocean Prime reaped approximately \$4 million in profits on profitable trades, but if all trades including unprofitable trades are included, that figure is reduced to approximately \$2.1 million. Overall, SEC's alleged illicit gains of over \$8 million are offset by illicit losses of over \$4 million.

that provided them an advantage and allowed them to trade in a highly profitable way. As Exhibit L shows, of the 153, 126 and 40 challenged events for Copperstone, Intertrade and Ocean Prime respectively, 64, 58 and 15 of the episodes generated losses for the funds. On a combined basis, more than 40 percent of the questioned trades generated losses.

V. TRADING IN ADVANCE OF EARNINGS ANNOUNCEMENTS IS COMMON

23. The SEC alleges that the pattern of Mr. Amaryan's Related Funds' trading illustrates participation in the insider trading scheme. However, academic research has shown that investors, including institutions and individuals, frequently trade in the periods surrounding earnings releases and that this activity typically increases trading volume. For example, Berkman, et al., show that "Trading just ahead of earnings announcements reduces holding costs and risk, because the positions are held for only short periods of time (until the earnings are announced). Investors would not wait until the last moment to trade because waiting increases the possibility that other traders with similar opinions would affect the price. Hence, trading volume should increase steadily for several days prior to earnings announcements. Morse (1981) and Frazzini and Lamont (2007), among others, provide empirical evidence consistent with this prediction."³¹

24. A study of short-selling prior to earnings announcements finds that "a fairly large minority of stocks is subject to large increases in short-selling in the days leading up

31. Berkman, Henk, Valentin Dimitrov, Prem C. Jain, Paul D. Koch, & Sheri Tice (2009): "Sell on the News: Differences of Opinion, Short-Sale Constraints, and Returns Around Earnings Announcements," 92 *Journal of Financial Economics* 376-399, at 394. The cited studies are: Kim, Oliver, & Robert E. Verrecchia. 1991. "Market Reaction to Anticipated Announcements," 30 *Journal of Financial Economics* 273-309; He, Hua, & Jiang Wang. 1995. "Differential Information and Dynamic Behavior of Stock Trading Volume," 8 *Review of Financial Studies* 919-72; Morse, Dale. 1981. "Price and Trading Volume Reaction Surrounding Earnings Announcements: A Closer Examination," 19 *Journal of Accounting Research* 374-83; and Lamont, Owen, & Andrea Frazzini. 2007. "The Earnings Announcement Premium and Trading Volume," National Bureau of Economic Research working paper 13090 (May).

to the announcement.”³² A study of pre-earnings announcement option trading reports that “[o]ption market activity increases by more than 10 percent in the four days before quarterly earnings announcements.”³³

25. The academic literature finds that investors increase their search for information about a company prior to its earnings announcement and that stock price, stock price volatility, and trading volume behavior prior to earnings announcements may provide catalysts for pre-announcement trading. For example, a study of Google searches about companies prior to their earnings announcements finds that “abnormal Google search increases about two weeks prior to the earnings announcement” and that “[w]hen investors search for more information in the days just prior to the announcement, preannouncement price and volume changes reflect more of the upcoming earnings news.”³⁴ One study of pre-announcement abnormal volume finds that “intense aggregate individual investor buying (selling) predicts large positive (negative) abnormal returns on and after earnings announcement dates,”³⁵ while another concludes that “pre-announcement abnormal trading volume positively predicts firms’ earnings news.”³⁶ A study of pre-earning announcement price movements finds that “a long (short) position in firms whose returns strongly underperform (outperform) the market in the three days

32. Christophe, Stephen E., Michael G. Ferri, & James J. Angel. 2004. “Short-Selling Prior to Earnings Announcements,” 59 *Journal of Finance* 1845-75, at 1854.

33. Amin, Kaushik I., & Charles M. C. Lee. 1997. “Option Trading, Price Discovery, and Earnings News Dissemination,” 14 *Contemporary Accounting Research* 153-92, at 153.

34. Drake, Michael S., Darren T. Roulstone & Jacob R. Thornock. 2012. “Investor Information Demand: Evidence from Google Searches Around Earnings Announcements,” 50 *Journal of Accounting Research* 1001-40, at 1001-2.

35. Kaniel, Ron, Shuming Liu, Gideon Saar & Sheridan Titman. 2012. “Individual Investor Trading and Return Patterns Around Earnings Announcements,” 67 *Journal of Finance* 639-80, at 639.

36. Johnson, Travis L., & Eric C. So. 2015. “Asymmetric Trading Costs Prior to Earnings Announcements: Implications for Price Discovery and Returns,” working paper (May), at 4.

prior to earnings announcements yields an average return of 145 basis points (bps) during the announcement window.”³⁷

26. Baker, et al., show that a significant aspect of mutual funds’ ability to generate returns for their clients is “concentrated around earnings announcement periods” and that this “provide[s] additional evidence of the trading ability of mutual funds and shed[s] new light on its source, namely, an ability to forecast earnings fundamentals.”³⁸ Kaniel, et al., show that “pre-event trading by individuals does in fact predict returns on and after earnings announcement dates” and that “these results, which are statistically very significant, are consistent with the idea that, in aggregate, individual investor trading prior to earnings announcements contains pertinent information.”³⁹ The fact that the Related Funds traded in securities in the periods immediately before earnings announcements, alone, does not therefore support an inference that they were in possession of material non-public information.

27. Others have shown that there is an increase in the volume of options trading in securities in the three to four days prior to an earnings announcement. A study of pre-announcement option trading finds that “option traders initiate a greater proportion of long (short) positions immediately before “good” (“bad”) earnings news.”⁴⁰ This suggests that there are multiple ways the information others’ trading provides prior to earnings announcements may be used by traders such as the Related Funds to inform their decision to trade.

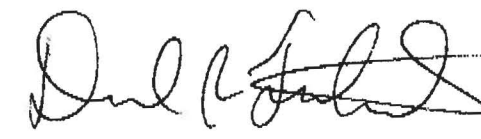
37. So, Eric C., & Sean Wang. 2014. “News-Driven Return Reversals: Liquidity Provision Ahead of Earnings Announcements,” 114 *Journal of Financial Economics* 20-35, at 21.

38. Baker, Malcom, Lubomir Litov, Jessica A. Wachter, and Jeffrey Wurgler, “Can Mutual Fund Managers Pick Stocks? Evidence from Their Trades Prior to Earnings Announcements”, *Journal of Financial and Quantitative Analysis*, Vol. 45, No. 5, Oct. 2010, pp. 1111-1131, at 1129-30.

39. Kaniel, Liu, Saar & Titman (2012), at 640.

40. Amin & Lee (1997), at 153.

I declare under penalty of perjury that the foregoing is true and correct.

A handwritten signature in black ink, appearing to read "Daniel R. Fischel", written over a horizontal line.

Daniel R. Fischel

Executed September 16, 2015.